ICR News 2013

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Materials Related with "Production of Synthetic Oil by the Fischer-Tropsch Process" in the Institute for Chemical Research Were Approved as Chemical Heritage

Prof MURATA, Yasujiro

Materials related with "Production of Synthetic Oil by the Fischer-Tropsch Process" in the Institute for Chemical Research (ICR) were approved as Chemical Heritage by the Chemical Society of Japan. The research works on the synthetic oil at ICR, Kyoto University and the materials for industrial process at the Takikawa Plant, the Hokkaido-jinzosekiyu, Inc. were certified. During the World War II, the Japanese government strongly pushed academia and industry to carry out research works on production of synthetic oil from coal, and the synthetic oil was produced nationwide in industrial scale. The Hokkaidojinzosekiyu, Inc., which was founded in 1938, introduced the Fisher-Tropsch process from Germany and headed for industorial production of synthetic oil from a mixture of carbon monooxide and hydrogen gases by the use of the cobalt catalysts. Professors Gen-itsu Kita and Shinjiro Kodama at the ICR, Kyoto University, succeeded in the development of the effective iron catalysts, and the research works were used in industrial process at the Takikawa Plant of the Hokkaidojinzosekiyu, Inc, located in Takikawa, Hokkaido. Although produced amounts of the synthetic oil were not much until the end of the World War II, the research works and the industrial process established the base of the petrochemical industry until today.

Chemical Heritage is one of the most important historical materials related to chemistry and chemical technology in Japan approved by the Chemical Society of Japan. The presentation ceremony of the award was held in the 93rd Spring Annual Meeting of the Chemical Society of Japan at Ritsumeikan University, Biwako Kusatsu Campus on 23 March 2013.

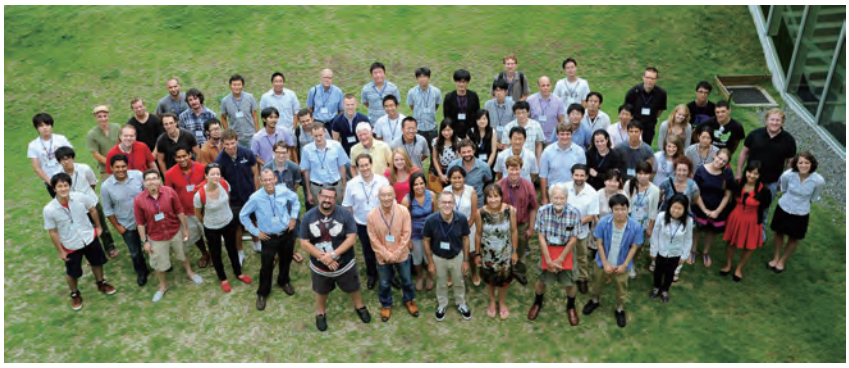
The certificate presentation ceremony on 23 March 2013;
(left to right) Makoto Oda (Superintendent of Takikawa City Board of Education), Kohei Tamao (President of the Chemical Society of Japan), Naoki Sato (Director of ICR) at the award ceremony.

Certificate for Chemical Heritage

13th Annual International Workshop on Bioinformatics and Systems Biology (IBSB 2013)

Prof MAMITSUKA, Hiroshi

International workshop of Bioinformatics and Systems Biology (IBSB) is a student-oriented, three-day workshop, which has been annually held since 2001 by collaboration of mainly three parties; Bioinformatics Center of Kyoto University, Japan, Bioinformatics Program of Boston University, USA and Systems Biology group of Berlin, Germany. This workshop has provided graduate students, postdocs and junior faculties with good opportunities to present and discuss their research objectives, approaches and results in the emerging field of genomics, systems biology and bioinformatics. This year, IBSB 2013 was held in Kyoto, being supported by JSPS International Training Program (ITP) "International Research Training Program on Bioinformatics and Systems Biology". The contents of IBSB 2013 were seven invited talks and more than 60 presentations, including long and short talks and poster presentations. The total number of participants reached around 90, including faculties, postdocs and graduate students of the involved institutes. These numbers are comparable with or larger than those of the past IBSB conferences, indicating significant success of IBSB 2013.



Kyoto University Joins edX Consortium

Prof UESUGI, Motonari

Kyoto University has started its attempt at providing Massive Open Online Courses (MOOCs) on a U.S-based nonprofit online learning platform, edX. As the very first KyotoUx-series course, I will be teaching "Chemistry of Life" in April 2014, trying to create a new educational path for millions of learners worldwide.

Chemistry and biology are traditionally taught as separate subjects at the high school level, where students memorize fundamental scientific principles that are universally accepted. However, at the university level and in industry, we learn that science is not as simple as we once thought. We are constantly confronted by questions about the unknown and required to use creative, integrated approaches to solve these problems. By bringing together knowledge from multidisciplinary fields, we are empowered with the ability to generate new ideas. The goal of this course is to develop skills for generating new ideas at the interface between chemistry and biology by analyzing pioneering studies.

Top performing students will have an opportunity to obtain MEXT Scholarships for postgraduate studies at Kyoto University. In addition, Kyoto University plans to offer travel awards to five students with the highest interim scores, who are interested in visiting Kyoto University for a week during summer.